5. (Amended) Power system stabilizer according to claim 4, wherein the current converter is arranged at the static parts of the main machine and connected to the rotor windings of the main machine via brushes and slip rings.

6. (Amended) Power system stabilizer according to claim 5, including a control system, comprising a first control unit for control of the static current converter.

7. (Amended) Power system stabilizer according to claim 6, wherein the control system comprises a second control unit, which is arranged co-rotating with the common shaft.

8. (Amended) Power system stabilizer according to claim 6, wherein the first control unit is arranged for control of the voltage source.

9. (Amended) Power system stabilizer according to claim 4, wherein the regulation machine and the main machine are brushless and in that the current converter is arranged co-rotating at the shaft of the rotor.

10. (Amended) Power system stabilizer according to claim 9, including a control system, which comprises a first control unit for control of the current converter, which first control unit is arranged co-rotating at the shaft of the rotor.

11. (Amended) Power system stabilizer according to claim 10, wherein the control system comprises a second control unit, which is arranged for control of the voltage source.

12. (Amended) Power system stabilizer according to claim 8, wherein the control system comprises an electric power network sensor for sensing of an electric disturbance in the electric power network.

13. (Amended) Power system stabilizer according to claim 12, wherein the electric disturbance is a disturbance of at least one quantity selected from the group of:

the amplitude of the voltage;

the virtual value of the voltage;

the phase of the voltage;

the frequency of the voltage;

the amplitude of the current;

the virtual value of the current;

the phase of the current; and

the frequency of the current.

14. (Amended) Power system stabilizer according to claim 12, wherein the control system comprises a first temperature sensor for sensing of the stator temperature.

15. (Amended) Power system stabiliser according to claim 14, wherein the control system comprises a second temperature sensor for sensing of the rotor temperature, which second temperature sensor being connected to the co-rotating control unit.

16. (Amended) Power system stabiliser according to claim 14, wherein the control system comprises communication means for wireless communication between the control units.

17. (Amended) Power system stabilizer according to claim 12, including a transformer arranged between the stator winding and the power line terminals.

18. (Amended) Power system stabilizer according to claim 17, wherein the electric power network sensor of the control system is arranged for sensing of voltage and/or current in the terminal between the transformer and the stator winding.

19. (Amended) Power system stabilizer according to claim 1, including a flywheel arranged at the shaft of the electrical main machine.

20. (Amended) Power system stabilizer according to claim 1, including a driving means arranged for applying a force to the shaft of the electrical main machine.

21. (Amended) Power system stabilizer according to claim 20, wherein the driving means is a turbine.

22. (Amended) Power system stabilizer according to claim 20, wherein the driving means is a combustion engine.

23. (Amended) Power system stabilizer according to claim 1, including a load means arranged for collecting of the driving force of the shaft of the electrical main machine.

24. (Amended) Power system stabilizer according to claim 23, wherein the load means is a brake.

25. (Amended) Power system stabilizer according to claim 23, wherein the load means is an electrical generator.

26. (Amended) Power system stabilizer according to claim 1, wherein the rotor winding is arranged for having a current displacement, which is dependent on the frequency of the rotor current.

27. (Amended) Power network comprising power lines and a shunt stabilizer, which shunt stabilizer comprises a rotating electrical main machine connected to the power lines, a current converter and a voltage source,

windings in a stator in the electrical main machine being connected to the power lines;

a rotor in the electrical main machine comprises alternating current windings;

one of the terminals of the current converter being connected to the alternating current windings of the rotor;

the other terminal of the current converter being connected to the voltage source;

whereby electric power is exchanged between the power lines and the shunt stabilizer by changing the rotational speed of the rotor.

28. (Amended) Power network according to claim 27, wherein the voltage source is independent of the power lines.

29. (Amended) Power network according to claim 27, wherein the voltage source is a regulating machine.

30. (Amended) Power network according to claim 27, wherein the regulating machine and the main machine has a common shaft.

31. (Amended) Power network according to claim 30, wherein the current converter is arranged at the static parts of the main machine and connected to the rotor windings of the main machine via brushes and slip rings.

32. (Amended) Power network according to claim 31, including a control system, which comprises a first control unit for control of the static current converter.

33. (Amended) Power network according to claim 32, wherein the control system comprises a second control unit, which is arranged co-rotating with the common rotor.

34. (Amended) Power network according to claim 32, the first control unit is arranged for control of the voltage source.

35. (Amended) Power network according to claim 30, wherein the regulation machine and the main machine are brushless and in that the current converter is arranged co-rotating at the shaft of the rotor.

36. (Amended) Power network according to claim 35, wherein a control system, which comprises a first control unit for control of the current converter, which first control unit is arranged co-rotating at the shaft of the rotor.

37. (Amended) Power network according to claim 36, wherein the control system comprises a second control unit, which is arranged for control of the voltage source.

38. (Amended) Power network according to claim 34, wherein the control system for control of the voltage source and the current converter comprises an electric power network sensor for sensing of an electric disturbance in the electric power network.

39. (Amended) Power network according to claim 38, wherein the electric disturbance is a disturbance of at least one quantity selected from the group of:

the amplitude of the voltage; the virtual value of the voltage; the phase of the voltage;

the frequency of the voltage;

the amplitude of the current;

the virtual value of the current;

the phase of the current; and

the frequency of the current.

40. (Amended) Power network according to claim 39, wherein the control system comprises a first temperature sensor for sensing of the stator temperature.

41. (Amended) Power network according to claim 40, wherein the control system comprises a second temperature sensor for sensing of the rotor temperature, which second temperature sensor being connected to the co-rotating control unit.

42. (Amended) Power network according to claim 40, wherein the control system comprises communication means for wireless communication between the control units.

43. (Amended) Power network according to claim 38, including a transformer arranged between the stator winding and the power lines.

44. (Amended) Power network according to claim 43, wherein the electric power network sensor is arranged for sensing of the voltage in the terminal between the transformer and the stator winding.

45. (Amended) Power network according to claim 27, including a flywheel arranged at the shaft of the electrical main machine.

46. (Amended) Power network according to claim 27, including driving means arranged for applying a force to the shaft of the electrical main machine.

47. (Amended) Power network according to claim 46, wherein the driving means comprises a turbine.

48. (Amended) Power network according to claim 46, wherein the driving means comprises a combustion engine.

49. (Amended) Power network according to claim 27, including load means arranged for collecting of the driving force of the shaft of the electrical main machine.

50. (Amended) Power network according to claim 49, wherein the load means comprises a brake.

51. (Amended) Power network according to claim 49, wherein the load means comprises an electrical generator.

52. (Amended) Power network according to claim 27, wherein the rotor winding is arranged for having a current displacement, which is dependent on the frequency of the rotor current.

53. (Amended) Method for stabilizing the voltage in a power system comprising the steps of:

transmitting of electric power between a power line and a rotating electrical main machine, including:

regulating, by the electrical main machine, the emitted/ received, electric power by changing of the rotational speed of the electrical main machine.

54. (Amended) Method according to claim 53, wherein the step of regulation comprises the steps of:

providing of a rotor current through rotor windings at the electrical main machine;

controlling of amplitude, phase and frequency of the rotor voltage for achieving of required amplitude, phase and frequency of the voltage over stator windings at the electrical main machine.

55. (Amended) Method according to claim 54, wherein the regulation power of the rotor winding of the main machine is provided by a regulation machine.

56. (Amended) Method according to claim 55, wherein a shaft of the regulation machine is mechanically driven by a shaft of the electrical main machine.

57. (Amended) Method according to claim 53, including the step of:

sensing of current/voltage of the power line for detecting of disturbances in its amplitude, virtual value, phase or frequency;

whereby the regulation takes place based on at least one of the detected disturbances.

58. (Amended) Method according to claim 57, including the step of:

sensing of the temperature of the stator windings of the main machine;

whereby the regulation takes place based also on the stator temperature.

59. (Amended) Method according to claim 57, including the step of:

sensing of the temperature of the rotor windings of the main machine; whereby the regulation takes place based also on the rotor temperature.

60. (Amended) Method according to claim 59, wherein the regulation step during a limited time gives electric powers that exceed rated power, valid for continuous operation, for the electrical main machine.

61. (Amended) Method according to claim 53, including the step of:

transferring of control information between the stationary and rotating parts of the main machine.

62. (Amended) Method according to claim 53, including the step of:

transforming the voltage over the stator windings of the main machine to a suitable network voltage.

Please remove multiple dependencies from the claims. If any multiple dependent claims remain after amendment, such multiple dependent claims should refer only to the next previous claim.

REMARKS

This Amendment is for the purpose of removing multiple dependencies and reference numerals from the claims and for placing the claims in appropriate U.S. format.

Allowance of the claims is earnestly solicited.

If filing this paper or any accompanying papers necessitates additional fees not otherwise provided for, the undersigned authorizes the Commissioner to deduct such additional fees from Deposit Account No. 04-2223.

Respectfully submitted,

John P. De Luca
Registration No. 25,505

DYKEMA GOSSETT PLLC
1300 I STREET N.W.
SUITE 300 W
WASHINGTON, D.C. 20005
(202) 522 8600

DC01\\ 42308.1
ID\ JPD